

In the claims:

1. (Original) A step-in binding for receiving a ski boot, comprising:
 - a base constructed and arranged to be secured to the ski;
 - a pair of boot support members pivotally supported from a front side of said base, and disposed laterally on either side of said base;
 - said pair of boot support members being biased to a boot receiving position and further having a locked position that is assumed once the boot is received, engages the pair of boot support members, and is cantilevered downwardly into the locked position;
 - a cross bar disposed between the pair of boot support members for engaging the front top of the boot;
 - a release lever arranged at the front of said base readily accessible to the skier and including a member that releases the pair of boot support members from the locked position to the boot receiving position upon activation of said release lever;
 - a first member supported by said base for interlocking with the bottom of the boot; and
 - a second member for interlocking with a top of the boot.
2. (Original) A step-in binding as set forth in claim 1 wherein said base has a pressure plate on a front top surface that firmly engages an underside of the boot.
3. (Original) A step-in binding as set forth in claim 2 wherein the pressure plate is slightly elevated above the rest of the top surface of the base and said first member includes securing pins engageable in holes in the boot for retaining the boot in place.
4. (Original) A step-in binding as set forth in claim 3 including a pair of stop posts associated respectively with the pair of support members adapted to receive the front of the boot sole and for aligning the boot position with the securing pins.

5. (Original) A step-in binding as set forth in claim 1 wherein said second member includes one of a screw or ridge for engaging the top of the sole of the boot in front of the toe box.
6. (Original) A step-in binding as set forth in claim 5 wherein said screw is an adjustable set screw that engages an implanted stud in the boot sole.
7. (Original) A step-in binding as set forth in claim 1 including a cross piece extending transversely between the lateral support members at a forward position thereof and spaced rearwardly of the pivot axis of the lateral support members.
8. (Original) A step-in binding as set forth in claim 7 wherein the second member is supported by the cross piece and has a vertically disposed screw that can be adjusted to apply force to the top surface of the duckbill of the boot sole.
9. (Original) A step-in binding as set forth in claim 7 wherein the second member is supported by the cross piece and has a set screw that locks into an opposing set screw in the boot.
10. (Original) A step-in binding as set forth in claim 7 wherein the second member is supported by the cross piece and has a hooked member that locks into the upper surface of the boot sole.
11. (Original) A step-in binding as set forth in claim 1 including a ski brake integrated into the base and having wings that extend through the pair of lateral support members and a heel retention assembly supported from the rear of the lateral support members.
12. (Original) A step-in binding as set forth in claim 1 including a cross bar disposed transversely between the pair of boot support members for engaging the front top of the boot over the duckbill and the center of said cross bar receives the front of the toe box of the boot

with the ends of the cross bar extending rearwardly by a distance in a range of 0.25 to 1.75 inches.

13. (Original) A step-in binding as set forth in claim 1 including a cross bar and wherein said lateral support members extending rearwardly from the center of said cross bar by a distance in a range on the order of 2.0 to 4.5 inches.

14. (Currently Amended) A step-in binding for receiving a ski boot for skiing, comprising:
a base including a center block constructed and arranged to be secured to the ski;
a pair of boot support members pivotally supported ~~from~~ at a front side of said base, and disposed laterally on either side of said center block;
said lateral side members being tapered inwardly toward the front so as to receive and guide the ski boot as it is to be engaged;
said pair of boot support members being biased to a boot receiving position and further having a locked position that is assumed once the boot is received, engages the pair of boot support members, and is cantilevered downwardly into the locked position;
a cross bar disposed transversely between the pair of boot support members for engaging the front top of the boot over the duckbill; and
a release lever arranged at the front of said base readily accessible to the skier and including a member that releases the pair of boot support members from the locked position to the boot receiving position upon activation of said release lever;
the center of said cross bar receiving the front of the toe box of the boot and the ends of the cross bar extending rearwardly by a distance in a range of 0.25 to 1.75 inches;
wherein the dimension from the cross piece to the ends of the lateral support members is on the order of 2.0 to 4.5 inches.

15. (Original) A step-in binding as set forth in claim 14 wherein said center block has a pressure plate on a front top surface that firmly engages an underside of the boot, and wherein the pressure plate

is slightly elevated above the rest of the top surface of the base and includes securing pins engageable in holes in the boot for retaining the boot in place.

16. (Original) A step-in binding as set forth in claim 14 wherein a cross piece extends transversely between the lateral support members at a forward position thereof and is spaced rearwardly of the pivot axis of the lateral support members by a dimension on the order of 0.75 to 2.25 inches.
17. (Canceled)
18. (Original) A step-in binding for receiving a ski boot, comprising:
 - a base constructed and arranged to be secured to the ski;
 - a pair of boot support members pivotally mounted from a front side of said base, disposed laterally on either side of said base and extending rearwardly;
 - said lateral side members adapted to receive and guide the ski boot as it is received;
 - said pair of boot support members being biased to a boot released position and further having a locked position that is assumed once the boot is received, engages the pair of boot support members, and is cantilevered downwardly into the locked position;
 - a cross bar disposed transversely between the pair of boot support members for engaging the front top of the boot toe box over the duckbill; and
 - a release lever mounted at the front of said base, readily accessible to the skier and including a release member that releases the pair of boot support members from the locked position to the boot released position upon activation of said release lever;
 - said lateral support members extending rearwardly from the center of said cross bar by a distance in a range on the order of 2.0 to 4.5 inches.
19. (Original) A step-in binding as set forth in claim 18 wherein the center of said cross bar receives the front of the toe box of the boot and the ends of the cross bar extending rearwardly by a distance in a range of 0.25 to 1.75 inches.

20. (Original) A step-in binding as set forth in claim 19 wherein the center of said cross bar is spaced rearwardly of the pivot axis of the lateral support members by a dimension on the order of 0.75 to 2.25 inches.
21. (Currently Amended) A step-in binding for receiving a ski boot, comprising:
a base constructed and arranged to be secured to the ski;
and a carriage pivotally supported from a front side of said base and comprising;
a pair of boot support members that are respectively disposed at opposed sides of said base and that are adapted to receive the sole of the ski boot,
said boot support members having locked and released positions,
and an overlying member that pivots with the pair of boot support members, is disposed over the base and engages a top surface of the sole of the ski boot when the ski boot is inserted into the carriage,
said carriage, upon receiving said boot, being cantilevered downwardly from a the released position to a the locked position wherein the sole of the ski boot is clamped by the overlying member against the fixed position base, and
further including a ski brake integrated into the base and having opposite legs that engage with respective boot support members, releasable when the boot is disengaged, and constructed and arranged to urge the carriage from the locked position to the released position.
22. (Previously Presented) A step-in binding as set forth in claim 21 wherein there is first member supported by said base for engaging or interlocking with the bottom of the boot; and a second member supported by the carriage for engaging or interlocking with a top of the boot.
23. (Currently Amended) A step-in binding as set forth in claim 22 wherein the top front surface if of the base is elevated above the rest of the top surface of the base to firmly engage the underside of the boot.

24. (Previously Presented) A step-in binding as set forth in claim 22 wherein said first member includes securing means comprising at least one securing pin engageable in the boot sole for retaining the boot in place.
25. (Previously Presented) A step-in binding as set forth in claim 21 wherein said second member includes securing means comprising at least one of a screw and ridge for engaging the top of the sole of the boot in front of the toe box.
26. (Currently Amended) A step-in binding as set forth in claim 22 wherein the ~~engagement~~ engagement surfaces of the first and second members are at a greater distance apart when the carriage is in the released position, which allows clearance for the engagement means when the boot is inserted into the carriage; and the carriage is cantilevered downward into a locked position reducing the clearance between the engagement surfaces in the first and second members, firmly holding the boot in place
27. (Currently Amended) A step-in binding as set forth in claim 21 ~~including~~ wherein said overlying member includes a cross piece extending transversely between the boot support members at a forward position thereof and spaced rearwardly of the pivot axis of the boot support members.
28. (Previously Presented) A step-in binding as set forth in claim 27 wherein the boot support members flare in an outward and rearward direction forming a platform on which the boot sole rests.
29. (Previously Presented) A step-in binding as set forth in claim 27 wherein the second member is supported by the cross piece and has engagement means comprising at least one of a vertically disposed screw and ridge that applies a force to the top surface of the duckbill of the boot sole when the carriage is cantilevered in a downward or locked position.
30. (Previously Presented) A step-in binding as set forth in claim 27 wherein the second member is supported by the cross piece and has interlocking means comprising at least one of a screw and ridge

that locks into an opposing means comprising at least one of a screw and ridge in the top surface of the duckbill of boot.

31. (Canceled)
32. (Currently Amended) A step-in binding as set forth in claim 21 ~~including~~ wherein said overlying member includes a cross bar disposed transversely between the pair of boot support members for engaging the front top of the boot over the duckbill and the center of said cross bar receives the front of the toe box of the boot with the ends of the cross bar extending rearwardly by a distance in a range of 0.25 to 1.75 inches.
33. (Currently Amended) A step-in binding as set forth in claim 21 ~~including~~ wherein said overlying member includes a cross bar and wherein said lateral support members extending rearwardly from the center of said cross bar by a distance in a range on the order of 2.0 to 4.5 inches.
34. (Currently Amended) A step-in binding for receiving a ski boot, comprising: a base constructed and arranged to be secured to the ski; and a carriage pivotally supported from a front side of said base and comprising; a pair of boot support members that are respectively disposed at opposed sides of said base and that are adapted to receive the sole of the ski boot, said boot support members having locked and released positions, and an overlying member that pivots with the pair of boot support members, is disposed over the base and engages a top surface of the sole of the ski boot when the ski boot is inserted into the carriage, said carriage, upon receiving said boot, being cantilevered downwardly from ~~a~~ the released position to ~~a~~ the locked position wherein the sole of the ski boot is clamped by the overlying member against the fixed position base; wherein the center of said overlying member receives the front of the toe box of the boot and the engagement surfaces of the overlying member extending rearwardly by a distance in a range of 0.25 to 1.75 inches
wherein the base has an elevated front top surface to firmly engage the underside of the boot.

35. (Previously Presented) A step-in binding as set forth in claim 34 wherein there is first member supported by said base for engaging or interlocking with the bottom of the boot; and a second member supported by the carriage for engaging or interlocking with a top of the boot.
36. (Currently Amended) A step-in binding for receiving a ski boot, comprising: a base constructed and arranged to be secured to the ski; and a carriage pivotally supported from a front side of said base and comprising; a pair of boot support members that are respectively disposed at opposed sides of said base and that are adapted to receive the sole of the ski boot, said boot support members having locked and released positions, and an overlying member that pivots with the pair of boot support members, is disposed over the base and engages a top surface of the sole of the ski boot when the ski boot is inserted into the carriage, said carriage, upon receiving said boot, being cantilevered downwardly from the released position to the locked position wherein the sole of the ski boot is clamped by the overlying member against the fixed position base; wherein the center of said overlying member receives the front of the toe box of the boot and the engagement surfaces of the overlying member extending rearwardly by a distance in a range of 0.25 to 1.75 inches
~~A step-in binding as set forth in claim 34~~ wherein the boot support members flare in an outward and rearward direction forming a platform on which the boot sole rests.
37. (Currently Amended) A step-in binding as set forth in claim 34 ~~including~~ wherein said overlying member includes a cross piece extending transversely between the boot support members at a forward position thereof and spaced rearwardly of the pivot axis of the boot support members.
38. (Previously Presented) A step-in binding as set forth in claim 35 wherein the first member is supported by the base and vertically dispose above the front top surface of the base; and interlocks with the duckbill of the boot sole when the carriage is cantilevered in a downward or locked position.

39. (Previously Presented) A step-in binding as set forth in claim 35 wherein the second member is supported by the carriage and vertically disposed below the cross piece of the carriage; and interlocks with the duckbill of the boot sole when the carriage is cantilevered in a downward or locked position.
40. (Canceled)
41. (Previously Presented) A step-in binding as set forth in claim 35 wherein said first member includes securing means comprising at least one securing pin, ridge engageable in the boot sole for retaining the boot in place.
42. (Previously Presented) A step-in binding as set forth in claim 35 wherein said second member includes securing means comprising at least one of a screw, stud, hook, ridge engageable in the duckbill of the boot.
43. (Previously Presented) A step-in binding as set forth in claim 35 wherein the second member is supported by the carriage and has a hooked member that locks into the duckbill of the boot.
44. (Previously Presented) A step-in binding as set forth in claim 35 wherein the engagement surfaces of the first and second members are at a greater distance apart when the carriage is in the released position, which allows clearance for the engagement means when the boot is inserted into the carriage; and the carriage is cantilevered downward into a locked position reducing the clearance between the engagement surfaces in the first and second members, firmly holding the boot in place.
45. (Previously Presented) A step-in binding as set forth in claim 35 wherein the second member is supported by the carriage and has engagement means that applies a force to a top surface of the duckbill of the boot when the carriage is cantilevered in a downward or locked position

46. (Previously Presented) A step-in binding as set forth in claim 35 wherein the second member is supported by the carriage and has interlocking means comprising at least one of a stud, hook or, ridge that locks into an opposing means comprising at least one of a screw, stud, hook or, ridge in the duckbill of boot.
47. (Previously Presented) A step-in binding as set forth in claim 34 including a ski brake integrated into the base and having opposite legs that engage with respective boot support members, releasable when the boot is disengaged, and constructed and arranged to urge the carriage from the locked position to the released position.
48. (Currently Amended) A step-in binding for receiving a ski boot, comprising:
a fixed position base constructed and arranged to be secured to the ski;
a carriage pivotally mounted from a front side of said base; the carriage containing pair of boot support members that are respectively disposed at opposed sides of said base and extend rearwardly forming a platform on which the boot sole rests, and an overlying cross member that engages with a top surface of the boot sole that pivots in unison with the laterally disposed boot support members; said carriage being biased to a boot released position and further having a locked position that is assumed once the boot is received, engages the carriage and is cantilevered downwardly into the locked position forcing the boot against ~~a~~ the fixed position base; and cross member in said carriage is spaced rearwardly of the pivot axis by a dimension on the order of 0.75 to 2.25 inches
49. (Previously Presented) A step-in binding as set forth in claim 48 wherein the overlying member supported by the carriage and has engagement means that interlocks with a top surface of the duckbill of the boot when the carriage is cantilevered in a downward or locked position

50. (Previously Presented) A step-in binding as set forth in claim 48 including a ski brake integrated into the base and having opposite legs that engage with respective boot support members, releasable when the boot is disengaged, and constructed and arranged to urge the carriage from the locked position to the released position.

51. (New) A step-in binding for receiving a ski boot, comprising:

a base constructed and arranged to be secured to the ski;

a carriage pivotally mounted from a front side of said base;

the carriage containing a pair of boot support members that are respectively disposed at opposed sides of said base and extended rearward forming a platform on which the boot sole rests, and a cross bar that engages with a top surface of the boot sole that pivots in unison with the laterally disposed boot support members;

said carriage being biased to a boot released position and further having a locked position that is assumed once the boot is received, engages the carriage and is cantilevered downwardly into the locked position forcing the boot against a top surface of the base.

52. (New) A step-in binding as set forth in claim 51 wherein said boot support members extend rearwardly from the center of said cross bar by a distance in a range on the order of 2.0 to 4.5 inches.

53. (New) A step-in binding as set forth in claim 51 wherein the cross bar has an engagement surface and the engagement surface there and the top surface of the base are at a greater distance apart when the carriage is in its released position, allowing clearance for the boot sole as it is inserted into the binding;

and the carriage is cantilevered downward into a locked position, reducing the clearance between the engagement surface of the cross bar and the top surface of the base, firmly engaging the boot.

54. (New) A step-in binding as set forth in claim 51 wherein the base has an elevated top surface to firmly engage the underside of the boot.

55. (New) A step-in binding as set forth in claim 51 wherein the cross bar is supported by the carriage and has engagement means that interlocks with a top surface of the duckbill of the boot when the carriage is cantilevered in a downward or locked position.

56. (New) A step-in binding as set forth in claim 51 including a ski brake integrated into the base and having opposite legs that engage with respective boot support members, releasable when the boot is disengaged, and constructed and arranged to urge the carriage from the locked position to the released position.

57. (New) A step-in binding as set forth in claim 51 wherein there is a first member supported by said base for engaging or interlocking with the bottom of the boot.

58. (New) A step-in binding as set forth in claim 57 wherein there is a second member supported by the carriage for engaging or interlocking with the top of the boot.

59. (New) A step-in binding as set forth in claim 58 wherein the first member is supported by the base and vertically disposed above the front top surface of the base; and interlocks with the duckbill of the boot sole when the carriage is cantilevered in a downward or locked position.

60. (New) A step-in binding as set forth in claim 59 wherein the second member is supported by the carriage and vertically disposed below the cross bar of the carriage; and interlocks with the duckbill of the boot sole when the carriage is cantilevered in a downward or locked position.

61. (New) A step-in binding as set forth in claim 60 wherein the second member is supported by the carriage and has engagement means that applies a force to a top surface of the duckbill of the boot when the carriage is cantilevered in a downward or locked position.